

AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph beginning at line 3 on page 2 to read as follows:

A voice coil 6 is disposed around a voice coil bobbin 5 and in the gap 4 formed between the plate 3 and the pole piece 2a. The voice coil bobbin 5 is composed of a non-conductor. An acoustic vibrating plate 7 is adhered to the voice coil bobbin 5. The acoustic vibrating plate 7 is for example ~~eone~~ a paper cone. An edge portion of the acoustic vibrating plate 7 is fixedly to a speaker frame 8. A signal input line (lead line) 9 is connected to the voice coil 6.

Please replace equation (3) in page 6 with the following equation:

$$N \times (R1 \times R2)^{1/2} / \{2\pi \times L1 \times (1 - k2)^{1/2}\} \geq 20000$$

Please replace equation (4) in page 6 with the following equation:

$$2\pi \times f \times L1^2 \times (N^2 \times R2 + L1 \times R1) / (N^2 \times X^2) \geq 0.3$$

$$X = (2\pi \times f)^2 \times (L1 \times R1 + L1 \times R1/N^2)^2$$

$$+ \{-R1 \times R2 + (2\pi \times f)^2 \times L1^2 \times (1-k^2) / N^2\}^2$$

Please amend the paragraph beginning at line 24 on page 10 to read as follows:

The acoustic vibrating plate 20 (for example, a ~~cone paper~~ paper cone) is disposed to the bobbin 19. The acoustic vibrating plate 20 is disposed to a speaker frame 21 through a flexible edge (not shown).

Please replace equation (6) in page 11 with the following equation:

$$N \times (R1 \times R2)^{1/2} / (2\pi \times L1 \times (1-k^2)^{1/2}) \geq 20000$$

Please replace equation (7) in page 12 with the following equation:

$$\begin{aligned} 2\pi \times f \times L1^2 \times (N^2 \times R2 + L1 \times R1) / (N^2 \times X^{1/2}) &\geq 0.3 \\ X = (2\pi \times f)^2 \times (L1 \times R1 + L1 \times R1/N^2)^2 \\ + \{-R1 \times R2 + (2\pi \times f)^2 \times L1^2 \times (1-k^2) / N^2\}^2 \end{aligned}$$

Please replace equation (8) in page 13 with the following equation:

$$\begin{aligned} Z_{in} &= (R1 + A^2 \times R2) + j\omega (L1 - A^2 \times L2) \\ A^2 &= \omega^2 \times M^2 / (\omega^2 \times L2^2 - R2^2) \\ M^2 &= k^2 \times L1 \times L2 \end{aligned}$$

Please replace the equation in line 12 of page 13 with the following equation:

$$A^2 = M^2 / L2^2 = k^2 \times L1 / L2$$

Please replace equation (9) in page 13 with the following equation:

$$Zin = (R1 + k^2 \times R2 \times L1 \times L2) + j\omega L1 (1-k^2)$$

Please replace equation (11) in page 14 with the following equation:

$$\begin{aligned} I2 / V1 &= \omega \cdot k (L1 \times L2)^{\frac{1}{2}} / Y^{\frac{1}{2}} \\ Y &= \omega^2 \times (L1 \times R2 + L2 \times R1)^2 \\ &+ \{-R1 \times R2 + \omega^2 \times L1 \times L2 \times (1-k^2)\}^2 \end{aligned}$$

Please replace equation (12) in page 14 with the following equation:

$$f_0 = N \times (R1 \times R2)^{\frac{1}{2}} / \{2\pi \times L1 \times (1-k^2)^{\frac{1}{2}}\}$$

Please amend the paragraph beginning at line 25 on page 14 to read as follows:

To satisfy formula (7), the decrease of the induced

current current at a desired frequency  $f$  in a high frequency band of 20 kHz or higher can be suppressed within 10 dB against the maximum current.

Please replace equation (14) in page 15 with the following equation:

$$N^2 = R_1/R_2$$

$$L_1/L_2 = N^2$$

Please replace equation (15) in page 16 with the following equation:

$$I_2 / V_1 = \omega \cdot k (L_1 \times L_2)^{1/2} / Y^{1/2}$$

$$Y = \omega^2 \times (L_1 \times R_2 + L_2 \times R_1)^2$$

$$+ \{-R_1 \times R_2 + \omega^2 \times L_1 \times L_2 \times (1-k^2)\}^2$$

Please replace equation (16) in page 16 with the following equation:

$$I_2 / V_1 (\max) = k \times (L_1 \times L_2)^{1/2} / (L_1 \times R_2 + L_2 \times R_1)$$

Please amend the paragraph beginning at line 6 on page 18 to read as follows:

In this case, the inductance  $L_2$  is almost equal to  ~~$L_1$~~   $\approx \underline{L_1/N^2}$ .